

What is claimed is:

1. A sliding door apparatus for opening and closing an entrance, comprising:

5 a door rail horizontally attached above the entrance and having a C-shape cross-section with a ceiling,

a sliding door suspended from the door rail for sliding freely therein,

10 a door roller attached to the sliding door and disposed in the door rail with a first gap between the door roller and the ceiling of the door rail, and

15 a guide roller attached to the sliding door adjacent to the door roller and having a diameter smaller than that of the door roller, said guide roller being disposed in the door rail with a second gap between the guide roller and the ceiling of the door rail to be smaller than the first gap.

2. A sliding door apparatus according to claim 1, further comprising a gap adjusting mechanism attached to the sliding door for adjusting the second gap.

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3. A sliding door apparatus according to claim 2, wherein said gap adjusting mechanism includes an eccentric shaft having protruding shafts at two ends eccentric with each other, one of said protruding shafts holding the guide roller and the other of said protruding shafts rotatably engaging the sliding door, and a screw for fastening the eccentric shaft at an arbitrary position.

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4. A sliding door apparatus according to claim 3, wherein said guide roller is situated between two door rollers.

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